ANTIDEGRADATION IMPLEMENTATION PROCEDURES

I. INTRODUCTION

 The Antidegradation Implementation Procedures (Procedures) establish the process for implementing the Antidegradation Policy (Policy) in *Standards for Interstate and Intrastate Surface Waters*, 20.6.4.8 NMAC. The Procedures should be construed in conjunction with other planning tools approved by the Water Quality Control Commission, including the Section 305(b) Report, the Section 303(d) List, and the Statewide Water Quality Management Plan.

II. TIER DEFINITIONS

The Policy establishes three categories of waters. These categories are called "tiers". The tier designation requires different levels of review and allows different levels of degradation. Tier 1 and 2 designations are made on a parameter-by-parameter basis. As a result, a water may be Tier 1 for one parameter and Tier 2 for a different one. Tier 3 designation is made on the basis of the special nature of the water.

Figure 1 illustrates the tier designation process.

A. Tier 1

Tier 1 applies to waters that do not meet or meet but do not exceed the water quality standards for existing or designated uses.¹ Tier 1 waters will be identified by assessing water quality information pursuant to established protocols. Waters identified as "impaired" for any existing or designated use(s) according to the current *State of New Mexico Procedures for Assessing Standards Attainment for the Integrated §303(d) / §305(b) Water Quality Monitoring and Assessment Report: Assessment Protocol² automatically will be Tier 1 for the parameter(s) of concern. Waters not identified on New Mexico's CWA 303(d) / 305(b) list will be evaluated on a case-by-case basis. The Department will conduct the evaluation using the available water quality information and the same protocols used to develop the Commission's 303(d) and 305(b) lists.*

The Policy defines the level of protection for Tier 1 waters: "Existing instream water uses and the level of water quality necessary to protect the existing uses shall be

¹ The terms "existing use" and "designated use" are defined in the *Code of Federal Regulations* (40 CFR 131.3) and the New Mexico *Standards for Interstate and Intrastate Surface Waters* (20.6.4.7 NMAC). The terms are not interchangeable and are subject to different levels of protection depending on the specific use. *See, e.g.,* 40 CFR 131.10.

² The protocol is based upon USEPA's *2002 Integrated Water Quality Monitoring and Assessment Report Guidance*; 2001 Memorandum from Robert H. Wayland, Office of Wetlands, Oceans, and Watersheds. Washington D.C.

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maintained and protected." 20.6.4.8.A.1 NMAC. A use is existing if "actually attained in a surface water on or after November 28, 1975, whether or not they are actually included in the water quality standards." See 40 CFR 131.3(e); 20.6.4.6.Q NMAC. Tier 1 defines the minimum level of protection afforded to all waters regardless of tier designation.

B. Tier 2

Tier 2 applies to waters whose quality is better than necessary to protect the Clean Water Act (CWA) Section 101(a)(2) goals. Tier 2 applies to all classified waters (e.g., identified in the New Mexico Water Quality Standards) that are not designated as Tier 1 or Tier 3 on a parameter-by-parameter basis. Tier 2 may apply to unclassified waters on a parameter-by-parameter basis depending on the available water quality information. Like Tier 1 waters, Tier 2 waters will be identified by assessing water quality information pursuant to established protocols.

The Policy defines the level of protection for Tier 2 waters:

Where the quality of a surface water of the state exceeds levels necessary to support the propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected unless the commission finds,³ after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic and social development in the area in which the water is located. In allowing such degradation or lower water quality, the state shall assure water quality adequate to protect existing uses fully. Further, the state shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable BMPs for nonpoint source control. Additionally, the state shall encourage the use of watershed planning as a further means to protect surface waters of the state.

In Tier 2 waters, limited degradation may be allowed after consideration of several factors, including but not limited to:

1) the discharge's potential to affect existing or designated uses or to interfere with CWA Section 101(a)(2) goals (water quality

20.6.4.8.A.2 NMAC.

³ Pursuant to the New Mexico Water Quality Act, Section 74-6-4.E, the Commission delegated responsibility for implementing the water quality standards, including the antidegradation policy, to the Department. See 20.6.4.8.E NMAC.

which provides for the "protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water"); 4

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the need to accommodate important economic and social development in the area in which the water is located; and

3) the availability of discharge alternatives, including no discharge, reuse, land disposal, pollution prevention or reduction, and pollutant trading with point and non-point sources.

 Even if the decision is made to allow degradation in a Tier 2 water, water quality must be maintained to ensure the protection of existing uses. Water quality also must be maintained to ensure the protection of designated uses unless the designated uses are modified through a use attainability analysis, 40 CFR 131.10(j) and 20.6.4.14 NMAC, or adequately protected by segment-specific water quality standards. Finally, water quality must be maintained to ensure the protection of the CWA Section 101(a)(2) uses. The applicant for the new or increased discharge (or an existing discharge in certain circumstances as described below) bears the burden of demonstrating the social and economic need for degrading water quality.

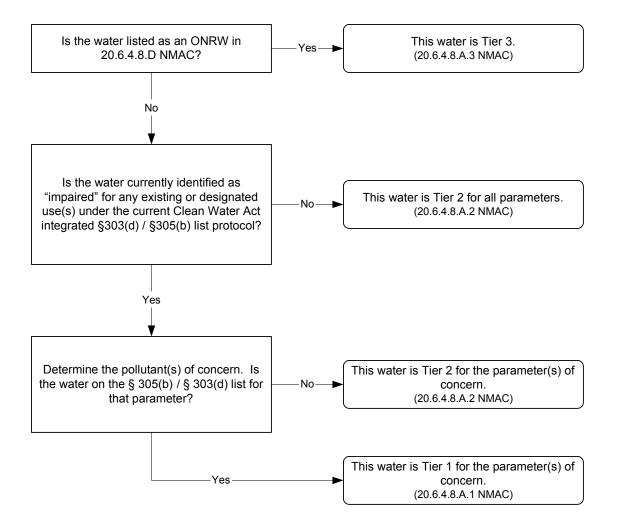
C. Tier 3

Tier 3 applies to waters that are designated by the Commission as "outstanding natural resource waters". The Commission designates Tier 3 waters after public notice and comment pursuant to procedures established in the New Mexico Water Quality Standards. See 20.6.4.8.B NMAC.

 The Policy prohibits any degradation in Tier 3 waters. 20.6.4.8.A.3 NMAC. However, the prohibition on degradation does not mean that all discharges are prohibited. In special circumstances, a discharge may be allowed if it does not cause degradation or causes only temporary and short-term changes in water quality that do not impair existing uses. Such special circumstances must undergo antidegradation review.

⁴ Commonly referred to as the "fishable/swimmable goals".

Figure 1. Tier Determination Flowchart



III. IMPLEMENTATION

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The Procedures apply to every proposal for a new or increased discharge to a surface water of the State as defined in 20.6.4.7.RR NMAC. "New or increased discharge" includes NPDES permits issued pursuant by the U.S. Environmental Protection Agency (EPA) to CWA Section 402 and Dredge-and-Fill Permits issued by the U.S. Army Corps of Engineers (Army Corps) pursuant to CWA Section 404. The Procedures also apply to the renewal of permits for existing discharges in certain circumstances as determined by the Department, including a single discharge causing degradation over time, a single source contributing to cumulative degradation, and a single source with a history of noncompliance with its permit. The Procedures do not apply to other water quality-related actions, including but not limited to revision of Commission documents such as water quality standards, Continuing Planning Process, Water Quality Management Plan, and Nonpoint Source Management Program, the Commission's establishment of TMDLs, or the conduct of studies, including use attainability analyses.⁵ These types of water quality-related actions already are subject to extensive requirements for review and public participation, as well as various limitations on degradation imposed by state and federal law.

A. POINT AND REGULATED SOURCES

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1. Tier 1

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The Department employs the CWA Section 401 certification process to ensure that water quality that does not meet or that meets but does not exceed the water quality standards for existing uses in Tier 1 waters is not degraded by a new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances. See Continuing Planning Process, Section entitled, Process for the Development of Effluent Limitations. The Section 401 certification ensures that NPDES and Dredge-or-Fill permits are consistent with state law, protect the water quality standards, and implement the water quality management plan (including TMDLs). The Section 401 certification also ensures that NPDES permits comply with the federal requirement that a new or increased discharge will not cause or contribute to a violation of water quality standards (unless such discharge is authorized by a TMDL waste load allocation or similar mechanism prior to TMDL establishment). See 40 CFR 122.4(i).⁶

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There are a number of opportunities for public participation for new or increased discharges into Tier 1 waters. The Commission adopts TMDLs for Tier 1 waters not meeting their water quality objectives subject to public notice and comment. The EPA and Army Corps follow detailed procedures requiring public notice and comment when

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⁵ Section 4.8, Water Quality Standards Handbook (USEPA 1994).

⁶There is no comparable federal requirement for Dredge-or-Fill Permits, but the Department still uses the Section 401 certification review to ensure that a new or increased discharge complies with TMDL waste load allocations.

issuing NPDES and Dredge-or-Fill permits. Finally, the Department's Section 401 certification can be appealed and a full hearing held before the Commission.

2. Tier 2

a. Determination of Necessity

Tier 2 screening is triggered when a new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances is proposed for a receiving water with existing water quality better than necessary to support the propagation of fish, shellfish, and wildlife, or recreation in and on the water. The initial focus is the magnitude of the effect on water quality. If the magnitude of the effect on water quality exceeds a specified level, Tier 2 review will be conducted. Below that specified level, Tier 2 review will not be conducted. By establishing a *de minimus* level above which Tier 2 review will be conducted, limited state resources are directed to new or increased discharges and the renewal of permits for existing discharges in certain circumstances with the likelihood of causing significant degradation of water quality.

The Department will evaluate whether the magnitude of the effect on water quality exceeds a specific level on a parameter-by-parameter basis. The evaluation will be conducted using numeric criteria only, because of the impracticability of applying the narrative criteria. It should be noted that the decision to use numeric criteria does not expose Tier 2 waters to substantial degradation of water quality because these waters are protected by overlapping designated and existing uses and their associated criteria, as well as by the NPDES and Dredge-or-Fill permits and Section 401 certification which must be written to protect the narrative criteria.

Figure 2 illustrates the process for determining whether a new or increased discharge is subject to Tier 2 review. The following text explains the figure in more detail.

1) Publicly Owned and Private Domestic Treatment Work Discharges

For purpose of Tier 2 review, the following new or increased discharges and the renewal of permits for existing discharges in certain circumstances by publicly owned treatment works (POTWs) and privately owned domestic treatment works (PODTWs) are considered *de minimus* and are not subject to Tier 2 review:

1) the POTW or PODTW has a design capacity less than or equal to 0.1 million gallons per day and is eligible to omit Part B of the NPDES permit application form (OMB Number 2040-0086, Approved 1/14/99);⁷

⁷ During the development of the revised NPDES permit application form, EPA studied the potential for minor POTWs and PODTWs to cause violations of water quality standards. EPA found that these facilities posed an extremely low probability of causing a violation of water quality standards because of [footnote continued on next page]

- 2) the design capacity of the POTW or PODTW or the pollutant load (measured on a parameter-by-parameter basis) will increase less than or equal to 10 percent in a five-year period, and the exemption is not used for two consecutive permits;
- 3) the design capacity of the POTW or PODTW will increase by more than 10 percent but less than or equal to 25 percent in a five-year period, and the POTW or PODTW demonstrates to the Department's satisfaction that it is implementing a water conservation or wastewater reuse or diversion program designed to reduce the discharge volume by at least 10 percent in that five-year period, and the exemption is not used for two consecutive permits;
- 4) the design capacity of the POTW or PODTW is less than or equal to 10 percent of the critical low flow of the receiving stream (as defined in the water quality standards);
- 5) the POTW or PODTW demonstrates to the Department's satisfaction that its pollutant load (measured on a parameter-by-parameter basis) will be offset by enforceable reductions by other point or nonpoint sources; or
- 6) the new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances was reviewed in an Environmental Assessment (EA) or Environmental Impact Statement (EIS) that considered water quality impacts and the social and economic development in the area in which the water is located and that was conducted in accordance with federal regulations, and the responsible federal agency made a Finding of No Significant Impact (FONSI).

Notwithstanding these *de minimus* activities, the Department shall conduct Tier 2 review for any new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances by a POTW or PODTW when the discharge, taken together with all other activities allowed after the baseline water quality is established, would cause a reduction in the available assimilative capacity of 10 percent or more for the parameter of concern.

For purpose of this section, assimilative capacity is defined as the difference between the baseline water quality and the water quality criterion for the parameter of concern.

Figure 2 illustrates the process for determining whether a new or

their low volume and effluent quality (even without considering the ameliorative effect of dilution). 64 Fed. Reg. 42433 (August 4, 1999).

increased discharge or the renewal of a permit for an existing discharge in certain circumstances by a POTW or PODTW is subject to Tier 2 review.

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2) Industrial Discharges

For purpose of Tier 2 review, the following new or increased discharges and the renewal of permits for existing discharges in certain circumstances by industrial activities are considered *de minimus* and are not subject to Tier 2 review:

1) the new or increased discharge will consume less than or equal to 10 percent of the total assimilative capacity for the pollutant of concern, and at least 10 percent of the total assimilative capacity for the pollutant of concern will remain unused after the discharge; or

2) the discharger demonstrates to the Department's satisfaction that its pollutant load (measured on a parameter-by-parameter basis) will be offset by enforceable reductions by other point or nonpoint sources.

Notwithstanding these *de minimus* activities, the Department shall conduct Tier 2 review for any new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances by an industrial activity when the discharge, taken together with all other activities allowed after the baseline water quality is established, would cause a reduction in the available assimilative capacity of 10 percent or more for the parameter of concern.

For purpose of this section, assimilative capacity is defined as the difference between the baseline water quality and the water quality criterion for the parameter of concern.

3) General Permits

New or increased discharges and the renewal of permits for existing discharges in certain circumstances covered by NPDES General permits and Dredge-or-Fill Nationwide and Regional permits present special considerations regarding Tier 2 review because of their approach of authorizing categories of discharges over a broad geographic range. Currently, three NPDES General permits (No Discharge, Storm water, and Aquifer Remediation) and one Dredge-or-Fill Nationwide permit (Dredge-or-Fill) are issued in New Mexico.

EPA has not issued any national guidance regarding Tier 2 review for these permits. Accordingly, the Commission adopts the following approach for general permits in New Mexico. Further, the Department reserves the right to require that any new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances (1) be subject to Tier 2 review if warranted by the facts and

circumstances, or (2) be required to obtain an individual NPDES or Dredge-or-Fill permit (and thereby subject to Tier 2 review).⁸

No Discharge

The No Discharge category consists of NPDES General Permits for Concentrated Animal Feeding Operations (CAFOs) and Oil and Gas Facilities in the Onshore Subcategory of the Oil and Gas Extraction Point Source Category (Onshore O&G).

a)

The Onshore O&G NPDES General Permit prohibits all discharges of pollutants to waters of the United States. 56 Fed. Reg. 7698 (February 25, 1991). Because discharges covered by this general permit are prohibited, water quality will not be degraded. Further, Onshore O&G activities generally are considered to have social and economic importance to New Mexico.

The CAFO General Permit prohibits all discharges unless caused by (1) a storm event greater than the 25-year 24-hour storm for the CAFO location; (2) chronic rainfall greater than the 25-year 24-hour storm for the CAFO location; or (3) a catastrophic event, such as a tornado, provided that the CAFO is properly designed and operated. 58 Fed. Reg. 7611 (February 8, 1993). Because discharges covered by this general permit are prohibited except in exceptional circumstances beyond the control of the CAFOs, the degradation of water quality, beyond temporary or short-term impacts, is unlikely. Further, CAFOs - primarily dairies and cattle feedlots - generally are considered to have social and economic importance to New Mexico.

b) Storm Water

The Storm Water category consists of the NPDES General Permits for Storm Water Discharges from Construction Activities, 68 Fed. Reg. 39087 (July 1, 2003), and the NPDES General permit for Storm Water from Industrial Activities, 65 Fed. Reg. 64746 (October 30, 2000). Storm water discharges are transient in nature, particularly in the desert climate of New Mexico. Storm water discharges from construction activities are even more transient because they occur only during construction itself. Further, storm water dischargers seeking coverage under these general permits are required to identify pollutants on a parameter-by-parameter basis and to design and implement

⁸ Federal regulations for NPDES General Permits (40 CFR 122.28) and Dredge-and-Fill Nationwide and Regional Permits (33 CFR 325.7) require a discharger to obtain an individual NPDES or Dredge-and-Fill permit if, *inter alia*, circumstances have changed since the original authorization or the discharge is deemed to be "significant".

controls to prevent or reduce their discharge. As a result, storm water discharges that comply with the general permits are not likely to cause significant degradation of water quality. Finally, industrial and construction activities generally are considered to have social and economic importance to New Mexico.

c) Aquifer Remediation

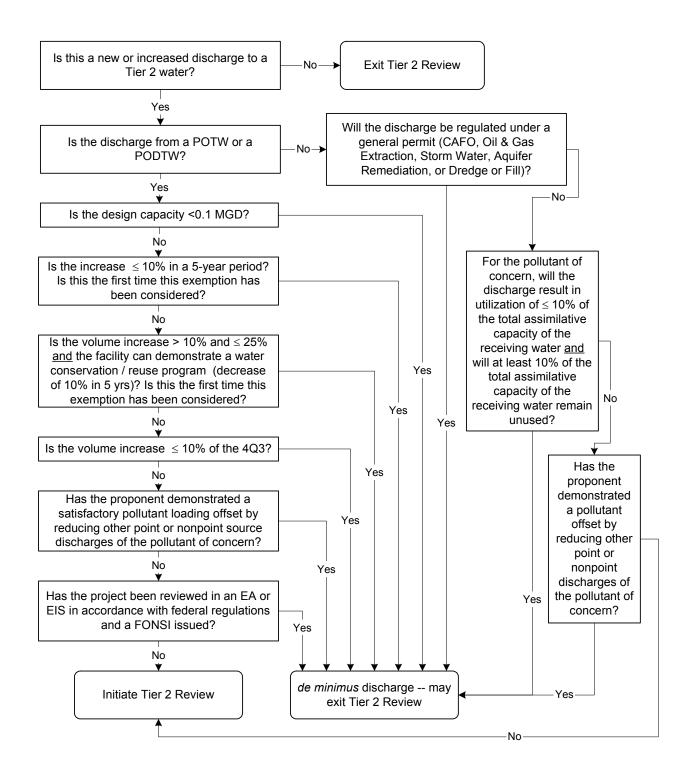
The Aquifer Remediation category consists of the NPDES General Permit for Discharges Resulting from Implementing Corrective Action Plans for Cleanup of Petroleum UST Systems. 62 Fed. Reg. 61116 (November 14, 1997). These discharges result from projects implemented to remediate groundwater contaminated with petroleum products from leaking underground storage tanks. The general permit imposes stringent effluent limitations on these discharges, even though they are considered to be relatively clean. Accordingly, these discharges are not expected to cause degradation to water quality. Moreover, because 90 percent of New Mexico's population relies on groundwater for drinking water (2000 CWA § 305(b) Report, page 87), these discharges are considered to have social and economic importance to New Mexico.

d) Dredge or Fill

The Dredge-or-Fill category consists of activities such as those that result in the discharge of fill material within the ordinary high water mark of waters of the United States. These types of activities are regulated by the U.S. Army Corps of Engineers under CWA Section 404. The Department, pursuant to its CWA Section 401 certification of this general permit, requires every discharger to obtain specific authorization before commencing the discharge. As a result, each discharge is subject to review by the Department. Based on this review, the Department may grant the authorization, grant the authorization with conditions, or deny the authorization. To implement the Policy, the Department will use this authorization process to evaluate whether a discharge will cause significant degradation of water quality. discharge will cause significant degradation of water quality if (1) the new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances will consume 10 percent or more of the total assimilative capacity for the pollutant of concern, or (2) the new or increased discharge or the renewal of a permit for an existing discharge, taken together with all other activities allowed after the baseline water quality is established, would cause a reduction in the available assimilative capacity of 10 percent or more for the parameter of concern.

If a discharge will cause significant degradation, the Department will either (1) impose conditions to avoid significant degradation; or (2) require Tier 2 review.

Figure 2. Tier 2 Review - Eligibility Flowchart



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b. Conducting Tier 2 Review

The steps for reviewing whether a new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances to a Tier 2 water may cause significant degradation are: 1) information gathering, 2) preliminary decision-making, 3) public-intergovernmental participation and 4) final decision-making.

1) Information Gathering

Within 30 days of receipt of the complete permit application, the Department shall notify the applicant regarding the standard of review for the new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances and its obligation to submit the information described below (as well as any other information that the Department may require to conduct the review). Within 30 days of receipt of the Department's notification, the applicant shall submit the required information. Within 30 days of receipt of the applicant's response, the Department shall notify the applicant whether the response is adequate and whether additional information is required. Upon the applicant's satisfaction of the Department's requests for information, the Department shall determine that the application is complete and initiate the antidegradation review. The applicant's failure to submit the requested information may result in certification denial or delay in permit issuance.

The Department shall request at least the following information:

- 1) An analysis of important social or economic activities and development in the area in which the water is located that may be beneficially impacted by the new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances;
- 2) An analysis of important social or economic activities and development in the area in which the water is located that may be adversely impacted by the new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances;
- 3) An analysis of the following factors, quantified to the greatest extent possible;
 - a) employment;
 - b) production of goods and services;
 - c) tax base;
 - d) housing;
 - e) effect on existing or expected environmental and public health problems;

3) Public Comment and Intergovernmental Coordination

The Department will publish notice and provide an opportunity to comment on the preliminary decision and statement of basis. The public comment period shall be no less than 30 days. During the public comment period, any interested person may submit written comments and request a public hearing. A request for a public hearing must be in writing and must state the nature of the issues to be raised. If the Department determines that the request for public hearing raises issues of significant public interest within the scope of the antidegradation policy, the Department will hold a public hearing. The public hearing will be held in a location near the water affected by the discharge.

With respect to the public notice, the Department shall:

- 1) Publish legal notice in a newspaper of general circulation in the affected area;
- 2) Post the legal notice on the Department website;
- 3 Mail the legal notice to all persons who have submitted a written request to the Commission for advance notice of preliminary decisions and provided the Commission with a mailing address; and
- 4) The legal notice shall describe where a copy of the preliminary decision and statement of basis may be obtained.

4) Final Decision

Within 60 days after the later of the close of the public comment period or the public hearing, the Department shall issue a final decision and a written statement of basis. The statement of basis shall:

- 1) Review the relevant facts, including the applicant, facility, water, uses, and criteria;
- 2) Identify changes from the preliminary decision and statement of basis;
- 3) Identify and summarize the basis for any conditions to be imposed on the discharge, including citations to applicable statutory and regulatory provisions;
- 4) Respond to comments on the preliminary decision and statement of basis, including comments during the public comment period and public hearing, if any; and
- 5) Describe the process for filing an appeal with the Commission.

The Department shall send the final decision to the applicant and to each person who submitted written comments or requested notice of the final decision. The final decision shall be effective immediately.

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3. Conducting Tier 3 Review

The Policy prohibits the degradation of a Tier 3 water by a new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances, but this prohibition is not the same as prohibiting any new or increase discharge or the renewal of a permit for an existing discharge in certain circumstances. It is theoretically possible for an applicant to make a case-by-case demonstration that a new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances will not cause degradation or will cause only temporary and short-term changes in water quality that do not impair existing uses. Any application for a new or increased discharge or the renewal of a permit for an existing discharge in certain circumstances in a Tier 3 water will be considered on a case-by-case basis applying the Tier 2 review process as modified by the Department to reflect unique factors associated with the Tier 3 water.

B. NONPOINT SOURCES

Federal law does not require the Commission to apply the Policy to nonpoint sources. *American Wildlands v. Browner*, 260 F.3d 1192 (10th Cir. 2001); 40 CFR 131.12(a)(2) (encouraging but not mandating enforceable controls on nonpoint sources). State law mandates a voluntary approach to pollution from nonpoint source. 20.6.4.8.E(13) NMAC. Accordingly, under state law, the Policy does not apply to nonpoint sources.

Although the Policy does not apply to nonpoint sources, the Commission implements a straightforward approach to address degradation of water quality by nonpoint sources. First, the Commission adopted the *Water Quality Management Plan*, which requires TMDLs for waters affected by nonpoint source pollution to contain Best Management Practices (BMPs). Second, the Commission adopted the *Nonpoint Source Management Program*, which awards Section 319(h) funds for persons to implement those BMPs. See Section VII - Impaired Waters Identification and Abatement Strategy.

IV. APPEALS

Persons adversely affected by any final decision of the Department may appeal to the Commission in accordance with the New Mexico Water Quality Act.

ANTIDEGRADATION DATA WORKSHEET	
SOCIO-ECONOMIC INDICATOR	DATA
CITY'S DEMOGRAPHICS	
Population (year)	
Current Population (year)	
Type of household moving away from [c	sity)
Number of households	
Median Household Income (U.S. Census, Census Designated Place)	
Median Household Income (Local Planning Board Estimates, City)	
Median Household Income (U.S. Census, State)	
Median Household Income (U.S. Census, County)	
Major Type of Employment	
Regional Economic Conditions	
% of Total Wastewater Flow from Residential & Municipal Sources	
Unemployment Rate (City)	
Unemployment Rate (County)	pet
Unemployment Rate (State)	·
CITY'S FINANCIAL HISTORY	
Property Tax Revenues (year)	
Sales Tax & Miscellaneous Revenues (year)	
Total Government Revenues(year)	
Property Tax Revenues (FY)	
Sales Tax & Miscellaneous Revenues (FY)	
Total Government Revenues (FY)	
Current Market Value of Taxable Property (FY)	
Property Tax Delinquency Rate	
Bond Rating – insured sewer	
Overall Net Debt (FY)	

ANTIDEGRADATION DATA WORKSHEET	
SOCIO-ECONOMIC INDICATOR	DATA
Cost of Treatment Options that will Meet Average Monthly Loading Limits based on current design flow	n
Capital Improvements	
OPTION 1. (year) dollars	
OPTION 2. (year) dollars	
Annual Operating Costs	,
OPTION 1. (year) dollars	
OPTION 2. (year) dollars	
FINANCING FOR WASTEWATER TREATMENT OPTIONS	
OPTION 1. Source of Financing	
Repayment Term, Vehicle	
Bond Rate	
Total Annual Cost of Existing Plant	
OPTION 2. Source of Financing	
Repayment Term, Vehicle	
Bond Rate	* ***
Total Annual Cost of Existing Plant	
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APPENDIX – A

Calculating the Municipal Affordability Screener	
A. Calculate Average Annualized Cost Per Household	
Calculate the Total Annual Cost of Treatment Option from Antideg data sheet (use a new form for each option)	
Interest Rate for Financing (i) =	(expressed as a fraction)
Time Period for Financing (n) =	(years)
Annualization Factor $\frac{1}{(i+1)^n - 1} (+i) =$	(1)
Total Capital Cost to be Financed =	(2)
Annual Operating Costs of Project =	(3)
Annualized Capital Cost $[(1) x (2)] =$	(4)
Total Annual Cost of Project [(3) + (4)] =	(5)
Calculate the Total Annual Cost to Households =	
Total Annual Cost of Project (5) x Percentage of Total Wastewater Flow Attributable to Residential And Municipal Wastewater	(6)
Flows = Total Annual Cost of Existing Plant (\$) x Percentage of Total Wastewater Flow Attributable to Residential and Municipal Wastewater Flows =	(7)
Total Annual Cost to Households [(6) + (7)] =	(8)
Calculate the Average Annualized Cost Per Household	
Total Ann. Cost to Households (8) = Number of Households	(9)

B. Calculate Screener Value:	
Average Annualized Cost Per Household (9) (x 100) = Median Household Income	% (10)
What type of impact does the Municipal Affordability Screener Indicate?	NA impac
Is there a need to proceed to the Secondary Affordability Test?	NA
I. Applying the Secondary Affordability Test	
A. Evaluating the Debt Indicators:	
Bond Rating:	4
What is Bond Rating?	-
What is the resulting score? (Slide 10)	NApoints (11
Overall Net Debt to Market Value of Taxable Property:	
Overall Net Debt =	(12
Market Value of Taxable Property =	(13
Overall Net Debt (12) (x 100)= Market Value of Taxable Property (13)	<u> </u>
What is the resulting Score? (Slide 11)	NA points (14
B. Evaluating the Socioeconomic Indicators:	
Unemployment Rate:	
What isUnemployment Rate?	
Is this above or below the State's rate?	
What is the resulting score? (Slide 12)	NA points (15

Median Household Income:			
What isMedian Household Income?		*	
Is this above or below the State's rate?			
What is the resulting score? (Slide 13)	NA	points	(16)
C. Evaluating the Financial Management Indicators:			
Property Tax Revenue to Full Market Value of Taxable Property:			937
What isProperty Tax Revenue?	* 23		_ (17)
What is the Full Market Value of Taxable Property?		lels ###	(18)
Property Tax Revenue (17) (x 100) = Full Market Value of Taxable Property (18)	,		%
What is the resulting score? (Slide 14)	NA	points	(19)
Property Tax Collection Rate:			li i
What is the Property Tax Collection Rate of			
What is the resulting score? (Slide 15)	NA	points	(20)
D.Calculate the Cumulative Secondary Affordability Test Score(Slide 16):		роши	(***)
$\frac{(11)+(14)+(15)+(16)+(19)+(20)}{6} =$	NA	points	(21)
Ac			

 $\mbox{NA} = \mbox{THE}$ STATE WILL FILL IN THIS BOX AFTER RECEIVING THE DATA FROM THE CITY

SUBSTANTIAL IMPACTS

- DETERMINES IF COMMUNITY CAN AFFORD POLLUTION CONTROLS TO AVOID DEGRADATION TO WATER QUALITY
- 1. MUNICIPAL AFFORDABILITY SCREENER ability to pay by household
 - o <1% little impact
 - o 1-2% mid-range impact
 - o >2% large impact
- If result of Municipal Affordability Screener falls into mid-range impact, then proceed to Secondary Affordability Test.
- 2. SECONDARY AFFORDABILITY TEST
 - o Debt Indicators
 - Bond Rating
 - Debt Burden on Residents
 - o Socioeconomic Indicators
 - Unemployment Rate
 - Medial Household Income
 - o Financial Management Indicators
 - Funding capacity available to support debt based on community wealth
 - Property collection Rate
- ❖ Each indicators measured as: weak = 1; mid-range = 2; strong = 3. Result is the cumulative average of all indicators and is called the "Secondary Assessment Score."
- ❖ The Cumulative Secondary Affordability Test Assessment ranks the score as follows:
 <1.5 = weak; 1.5 2.5 = mid-range; >2.5 = strong

3. ASSESSMENT OF SUBSTANTIAL IMPACTS MATRIX

o Combines the results of the MUNICIPAL AFFORDABILITY SCREENER with the SECONDARY AFFORDABILITY TEST

Secondary Assessment	Municipal Affordability Screener			
Score	<1.0%	1.0% - 2.0%	>2.0%	
<1.5	?	x	x	
1.5 – 2.5	V	?	X	
>2.5	7	V	?	

^{? =} Questionable affordability

Can project proponent afford to upgrade their facility to avoid water quality degradation?

 $[\]sqrt{\ }$ = Community can afford the pollution control X = Community cannot afford the pollution control

If conclusion from the Substantial Impacts analysis is "Questionable Affordability", then proceed to the Widespread Impacts analysis.

WIDESPREAD IMPACTS

- EVALUATES THE SOCIAL COSTS OF POLLUTION CONTROL REQUIREMENTS
- 1) Define the Affected Community
- 2) Evaluate Community's Current Characteristics
- 3) Evaluate How Community's Characteristics Would Change If Proposed Project Must Avoid Degradation to Water Quality
- 4) Discharger's Contribution to the community
 - Indicators that should be considered in the above evaluation should include:
 - o Median household income
 - o Unemployment rate
 - o Rate of industrial development
 - o Developing & declining industries
 - o Percent of household below poverty line
 - o Ability of community to carry more debt
 - o Local & regional factors
 - Other applicable information on the local and regional economy should also be reviewed:
 - o Annual rate of population change
 - o Current financial surplus as a percentage of total expenditures
 - o Percentage of property taxes actually collected
 - o Property tax revenues as a percentage of the market value of real property
 - o Overall debt outstanding as a percentage of market value of real property
 - o Overall debt per capita
 - o Percentage of outstanding debt due within 5 years